

REMARKS

Claims 1-11 and 13-21 are pending in this application. By this Amendment, claims 1, 3, 5, 13, and 20 are amended and claims 12 and 22 are canceled without prejudice to or disclaimer of the subject matter found therein. No new matter has been added. Reconsideration of the application is respectfully requested in light of at least the following remarks.

Applicant appreciates the indication that claim 11 is allowable. However, Applicant respectfully submits that all of the claims are allowable for at least the reasons discussed below.

Claims 1-17 and 22 are rejected under 35 U.S.C. §112, second paragraph. The rejection is respectfully traversed.

The amendments to the claims overcome the 35 U.S.C. §112, second paragraph, rejection. For example, claims 1 and 5 are amended to clarify that the natural numbers m_1 and m_2 are greater than 0. Claim 3 is amended to clarify the structural relationship between the aperture with respect to the reflectivity adjustment layer. For example, the aperture is formed on the upper surface of the resonator and the reflectivity adjustment layer is formed on the emitting surface within the aperture (e.g., Figs. 1, 2, 8 and 9; paragraphs [0065], [0068], and [0096] of the application).

Also, claim 13 is amended to clarify that the thickness of the reflectivity adjustment layer close to the contact surface with an electrode is larger than that of the other area (e.g., Figs. 11 and 13; paragraphs [0103] - [0104] of the specification). For example, as shown in Figs. 11 and 13, the thickness of the reflectivity adjustment layer is not constant, and can be increased (i.e., varied) around the neighborhood of a contact surface with an electrode (i.e., first electrode). Similarly, claim 1 is amended to clarify that the thickness of the reflectivity

adjustment layer varies (see Figs. 11 and 13). Because the amendments to the claims overcome the rejection, it is respectfully requested that the rejection be withdrawn.

Claims 1, 2, 6-8, 10, 15-17, and 22 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,618,414 to Wasserbauer et al. (Wasserbauer). The rejection is respectfully traversed.

Wasserbauer fails to disclose, at least, that "the layer of which the optical thickness is $m_1 \lambda / 2$ is formed in whole area of the second mirror, the reflectivity adjustment layer is formed within a part of an aperture formed on the upper surface of the resonator", as recited in claim 1 and similarly, in claim 3. Also, Wasserbauer fails to disclose that a thickness of the reflectivity adjustment layer varies, as recited in claim 3.

In Wasserbauer, the dielectric mirror portion 344 (i.e., reflectivity adjustment layer) is not formed within a part of the aperture formed on the upper surface of the resonator. Instead, the dielectric mirror portion 344 of Wasserbauer is formed on the top layer of mirror 342 (Fig. 10; col. 10, lines 28-38 of Wasserbauer).

Applicant's reflectivity adjustment layer, as recited in claims 1 and 3, is formed within a part of an aperture formed on the upper surface of the resonator (e.g., Figs. 1, 2, and 9 of the application). Wasserbauer fails to disclose these features.

Thus, Wasserbauer does not disclose each and every feature of claims 1 and 3 and the rejection under 35 U.S.C. §102 is inappropriate. Further, for the reasons discussed, Wasserbauer does not suggest the subject matter of claims 1 and 3.

Because Wasserbauer does not anticipate or suggest the subject matter of claim 1, Wasserbauer cannot anticipate or suggest the subject matter of claims 2, 6-8, 10, and 15-17, which depend from claim 1, for the reasons discussed with respect to claim 1 and for the additional features recited therein. The rejection of claim 12 is rendered moot by the cancellation of claim 12. It is respectfully requested that the rejection be withdrawn.

Claims 1 and 14 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,905,900 to Johnson et al. (Johnson); claims 3 and 4 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 6,185,241 to Sun; claim 5 is rejected under 35 U.S.C. §103(a) over Sun in view of Wasserbauer; and claims 9, 12, and 13 are rejected under 35 U.S.C. §103(a) over Wasserbauer in view of Sun. The rejections are respectfully traversed.

None of the applied references alone or in permissible combination disclose or suggest the features as recited in independent claims 1 and 3 for at least the same reasons as discussed with respect to Wasserbauer. For example, none of the applied references disclose or suggest "the layer of which the optical thickness is $m_1 \lambda / 2$ is formed in whole area of the second mirror, the reflectivity adjustment layer is formed within a part of an aperture formed on the upper surface of the resonator", as recited in claim 1 and similarly, in claim 3. Thus, it is respectfully requested that the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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